WHAT IS CLAIMED IS:

1. In a heat exchanger system having an inlet conveying gas to a heat exchanger, a device mounted in the inlet for more evenly distributing the gas into the heat exchanger, comprising:

a cone positioned in the inlet and diverting impingent gas around the cone such that an area of low pressure is formed behind the cone; and

a ring positioned outwardly from the cone and redirecting at least a portion of the gas diverted by the nose cone into the area of low pressure behind the cone.

2. The device of claim 1, wherein the cone comprises an outer surface defined by a radius of curvature.

3. The device of claim 1, wherein the ring comprises a substantially flat surface having gas flow impinge thereon and being oriented at an angle relative to an axial centerline of the cone that is between approximately 0 to 180-degrees.

4. The device of claim 1, further comprising a plurality of struts connecting the ring to the cone.

5. The device of claim 1, further comprising one or more additional rings positioned outwardly from the ring and from each other and diverting gas flow impingent thereon.

6. The device of claim 5, wherein the one or more additional rings each comprise a substantially flat surface having gas flow impinge thereon and being oriented at an angle relative to an axial centerline of the cone that is between approximately 45 to 135-degrees.

7. The device of claim 1, further comprising means for mounting the device within the inlet.

8. A device mounting in an inlet into a heat exchanger for distributing gas, comprising:

a nose cone positioned substantially on a central axis of the inlet and aerodynamically shaped to divert impingent gas around the nose cone; and

a first diverting ring spaced outwardly from the nose cone and oriented such that at least a portion of the gas diverted by the nose cone is redirected into the wake of the nose cone.

9. The device of claim 8, wherein the nose cone comprises an outer surface defined by a radius of curvature and having a leading portion with a smaller diameter than a trailing portion.

10. The device of claim 8, wherein the first diverting ring comprises a substantially flat surface having gas flow impinge thereon and being oriented at an angle relative to an axial centerline of the nose cone.

11. The device of claim 10, wherein the angle is between approximately 0 to 180-degrees.

12. The device of claim 8, further comprising a plurality of struts connecting the first diverting ring to the nose cone.

13. The device of claim 8, further comprising a second diverting ring spaced outwardly from the first diverting ring and oriented to divert gas flow impingent thereon.

14. The device of claim 13, further comprising a plurality of struts connecting the second diverting ring to the first diverting ring.

15. The device of claim 13, wherein the second diverting ring comprises a substantially flat surface having gas flow impinge thereon and being oriented at an angle relative to an axial centerline of the cone.

16. The device of claim 15, wherein the angle is between approximately 45 to 135-degrees.

17. The device of claim 13, wherein the first diverting ring is spaced a first axial distance from a trailing end of the nose cone, and wherein the second diverting ring is spaced a second axial distance from the trailing end that is greater than the first axial distance.

18. The device of claim 8, further comprising a plurality of rods for mounting the device within the inlet, each rod having a first end connecting to the nose cone and having a second end connecting to the inlet.

19. The device of claim 18, wherein the nose cone defines holes receiving the first ends of the rods.

20. The device of claim 18, further comprising a plurality of anchors mounted in refractory material lining the inlet and having the second ends of the rods threaded therein.

21. A heat exchanger for gas having a tube sheet, comprising:

an inlet having an inner wall and a central axis, the inlet attaching to the heat exchanger adjacent the tube sheet;

a refractory lining the inner wall of the inlet; and

a device mounting in the inlet for substantially evenly distributing impingent gas on the tube sheet, including:

a cone positioned substantially on the central axis of the inlet and diverting impingent gas around the cone; and

at least one ring spaced outwardly from the cone and diverting at least a portion of the gas diverted by the cone.

22. The device of claim 21, wherein the at least one ring comprises a substantially flat surface having gas flow impinge thereon and being oriented at an angle relative to an axial centerline of the cone that is between approximately 0 to 180-degrees.

23. The device of claim 21, further comprising a plurality of struts connecting the at least one ring to the cone.

24. The device of claim 21, further comprising a plurality of rods for mounting the device within the inlet, each rod having a first end connecting to the cone and having a second end connecting to the inlet.

25. The device of claim 24, further comprising a plurality of anchors fixedly mounted in the refractory and having the second ends of the rods threaded therein.

26. A method for improving an existing heat exchanger system, which includes gas conveyed to a heat exchanger through an input section, comprising the steps of:

a) modeling the gas characteristics of the existing heat exchanger system;

b) optimizing the shape of refractory in the input section based on the gas characteristics;

c) optimizing the size and orientation of a nose cone within the input section to distribute any centrally located jet of gas;

d) optimizing the size and orientation of one or more diverter rings within the input section to divert impingent gas within the input section;

e) fabricating an assembly comprising the nose cone and the one or more diverter rings; and

f) installing the assembly in the input section having the shaped refractory.

27. The method of claim 26, wherein step (c) comprises the step of iteratively determining a position of the nose cone along a central axis of the input section, a diameter of the nose cone, an axial expanse of the nose cone, or a surface curvature of the nose cone.

28. The method of claim 26, wherein step (d) comprises the step of iteratively determining a radius of a first diverter ring, a width of the first diverter ring, a relative separation of the first diverter ring from the nose cone, or an angular orientation of the first diverter ring to divert at least a portion of gas distributed by the nose cone into the wake of the nose cone.

29. The method of claim 26, wherein step (d) comprises the step of iteratively determining a radius of one or more second diverter rings, a width of one or more second diverter rings, a relative separation of one or more second diverter rings from the nose cone, or an angular orientation of one or more second diverter rings within the input section to divert gas impingent thereon.

30. The method of claim 26, wherein step (d) comprises the step of using more than one diverter ring within the input section based on a size of the input section or based on characteristics of the gas flow.

31. The method of claim 26, wherein step (f) comprises the step of mounting the assembly in the inlet section with a plurality of rods and anchors.